

Attorney Docket No.: FUJO 16.216 (100794-11220)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Koji MATSUYAMA et al.
Confirmation No.: 7540
Serial No.: 09/336,363
Filed: June 17, 1999
Title: DETECTION DEVICE OF A SPREADING CODE AND A TIMING,
...
Examiner: Kevin Kim
Group Art Unit: 2611

December 7, 2007

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

**ARGUMENTS SUBMITTED IN SUPPORT OF
PRE-APPEAL BRIEF REQUEST FOR REVIEW**

SIR:

This communication is filed with and in support of a Pre-Appeal Brief Request for Review, requesting a panel review to determine whether the Examiner has established a *prima facie* case of unpatentability with respect to pending claims 13, 14, 17, and 18 (the Office action having indicated that claim 15, the only other pending claim, is allowable).

Claims 13, 14, 17, and 18 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Allegedly Admitted Prior Art (the "AAPA") in view of U.S. Patent No. 5,768,306 to Sawahashi et al. Applicants respectfully traverse the rejection.

Claim 13 relates to a mobile station corresponding to DS-CDMA performing a first correlation determination between a received signal and a common spreading code with regard to a plurality of base stations by shifting a relative timing between the received signal

and the common spreading code, and performing a second correlation determination between the received signal and a plurality of kinds of spreading codes that are respectively different from the common spreading code based on a timing obtained by the first correlation determination. The mobile station of claim 13 includes, *inter alia*, ***a storage unit storing the received signal over a time long enough to perform both the first correlation determination and the second correlation determination.*** The mobile station of claim 13 also includes a control unit using same received signal having been stored in the storage unit for performing the first and second correlation determinations.

The Office action concedes that the AAPA does not disclose a storage unit for storing the received signal and a control unit using the stored signal for performing the first and second correlations, as claimed (Office action dated August 7, 2007; page 3, lines 2-4). The Office action relies on Sawahashi et al. as a combining reference that allegedly suggests these features.

According to Sawahashi et al., however, the period during which the received signal is kept stored in the memory 43 is limited to the period during which the correlation is obtained by multiplying the received signal with the phase of the replica of the spreading code sequence by shifting by one chip.

The Advisory action dated November 29, 2007, apparently admits that Sawahashi et al. discloses storing the received signal during a first correlation period only (Advisory action; page 2, lines 5-8). However, the Advisory action asserts that Sawahashi et al. is only relied on for the feature of storing the received signal while it is being correlated with a predetermined spreading code (Advisory action; page 2, lines 11-13). However, this misconstrues the requirements of under 35 U.S.C. 103(a), which requires that ***“the prior art reference (or references when combined) must teach or suggest all the claim limitations”*** (MPEP; 706.02(j); citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991);

emphasis added). Since none of the references disclose or suggest the feature of a storage unit storing the received signal over a time long enough to perform both the first correlation determination and the second correlation determination, the combination of the references, the propriety of which is respectfully not conceded, cannot render the claim unpatentable.

For example, Sawahashi et al. describe as follows on col. 5, lines 65 to col. 6, line 1:

“Furthermore, the frequency of the write timing signal and that of the read timing signal produced by the timing generator 42 are set at *$1/TC$ and K/TC* , respectively, where *TC is one chip period.*” (Emphasis added)

In other words, Sawahashi et al. describe the received signal being overwritten for each chip cycle (TC), and the received signal is, thus, stored for a period corresponding to one chip cycle (TC). Also, Sawahashi et al. describe reading out being performed K times on the basis of K/TC until the overwriting of the next received signal is performed, thereby the correlation is performed.

This means that Sawahashi et al. describe the received signal being kept stored in the memory 43 during the period in which the correlation is obtained by multiplying the received signal with a replica of the spread code sequence by shifting by one chip, and the overwriting after that is to be performed by the next received signal.

Thus, even assuming, arguendo, that it would have been obvious to apply the technique described in Sawahashi et al. to the AAPA, such a combination would have, at most, suggested the received signal being kept stored during a first correlation in which the correlation is obtained while shifting the relative timing between the received signal and the common spread code. *The storage period would have been limited, however, to the period during which the correlation is obtained while shifting. When this period is over, the overwriting is permitted.* Accordingly, the stored signal would not have been maintained in

the memory 43 until the determination of a second correlation to be performed after the first correlation.

In other words, even assuming, arguendo, that it would have been obvious to combine AAPA and Sawahashi et al. at the time the claimed invention was made, such a combination would still have failed to disclose or suggest,

“[a] mobile station corresponding to DS-CDMA performing a first correlation determination between a received signal and a common spreading code with regard to a plurality of base stations by shifting a relative timing between the received signal and the common spreading code, and performing ***a second correlation determination between the received signal and a plurality of kinds of spreading codes that are respectively different from the common spreading code based on a timing obtained by the first correlation determination***, said mobile station comprising:

a storage unit storing the received signal ***over a time long enough to perform both the first correlation determination and the second correlation determination***; and
a control unit using same received signal having been stored in the storage unit for performing the first and second correlation determinations,” as recited in independent claim 13.
(Emphasis added)

Accordingly, Applicants respectfully submit that claim 13 is patentable over the AAPA and Sawahashi et al., separately and in combination, for at least the foregoing reasons.

None of the references disclose or suggest the feature of claim 13 of “a storage unit storing the received signal over a time long enough to perform both the first correlation determination and the second correlation determination”. Therefore, for at least this reason claim 13 is allowable over the references.

Claims 14 and 17-18 incorporate features that correspond to those of claim 13 cited above, and are, therefore, patentable over the cited references for at least the same reasons.

In view of the remarks set forth above, this application is believed to be in condition for allowance, which action is respectfully requested. Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,

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